Weather Service getting upgrade

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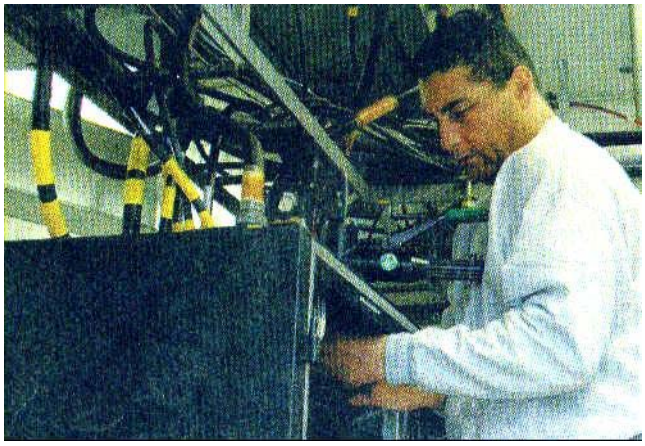

A two-man team from Norman, OK, a city considered a weather “hub” in meteorology circles, is giving a technology face-lift to the Doppler radar transmitter at the local National Weather Service office.

The two men from Norman, Jim Elliott and Jerry Barnett, have done several radar upgrades nationally and are from the Radar Operation Center. The ROC administers the radar program nationally, has engineering expertise and has done research into how to use the updated program, said Michael Sabones, meteorologist in charge at the NWS office south of Syracuse.

Sabones noted this is the first upgrade of the radar transmitter since it began operating in 1997 when the NWS worked out of trailers at the base of the radar tower. He said the radar data acquisition unit specifically is being upgraded, as well as the radar products generator. “This will make (the system) more reliable,” he said. “And it will be easier to update in the future.”

Elliott and Barnett are replacing large components of the system and are upgrading the hardware, Sabones said. They began working Monday morning and likely will be finished by the end of this week, assuming there are no major glitches.

The transmitter transmits pulses of radar energy in small bursts at an extremely fast rate of anywhere from 500 to 1,300 pulses every second, Sabones said. Based on what data comes back, forecasters can tell how big of a storm is approaching. Doppler technology utilized by NWS allows radar beams to be focused smaller, therefore allowing more detail to be seen, he added.

At first, the upgrade will not be noticeable to the general public and the data will look the same on a computer screen. But the upgrade will pave the way for more technological updates, which will be noticeable at some point down the road. As an example, Sabones noted one technology update he foresees is the use of a process known as dual polarization, which allows for better information in the signals received in order to better track rainfall estimates and the size of hail stones.

Though the Doppler radar transmitter is down, NWS is utilizing surrounding network radars from locations such as Indianapolis, Chicago, Cleveland and Detroit to still stay on top of the weather. The NWS location near Syracuse covers 37 counties in Indiana, Ohio and Michigan.

Norman, Okla., is not only home to the ROC, but also the Storm Prediction Center, the National Severe Storms Forecast Center, a NWS office and the University of Oklahoma. “There is a lot of meteorological expertise in that area,” Sabones said.

The Department of Defense and the Federal Aviation Administration are also receiving radar upgrades, he said.